Methodological Evaluation of Maternal Care Facilities Systems in Ghana: A Randomized Field Trial

Abayomi Ameglio[1], Kofi Adjoa[1,2], Amoako Gyamfi[3,4]

[1] Kwame Nkrumah University of Science and Technology (KNUST), Kumasi

[2] Department of Internal Medicine, University of Professional Studies, Accra (UPSA)

[3] Department of Internal Medicine, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi

[4] Noguchi Memorial Institute for Medical Research

Author notes

Abayomi Ameglio is affiliated with Kwame Nkrumah University of Science and Technology (KNUST), Kumasi and focuses on Medicine research in Africa.
Kofi Adjoa is affiliated with Kwame Nkrumah University of Science and Technology (KNUST), Kumasi and focuses on Medicine research in Africa.
Amoako Gyamfi is affiliated with Department of Internal Medicine, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi and focuses on Medicine research in Africa.

Abstract

Maternal care facilities in Ghana are essential for ensuring safe childbirth and infant health outcomes. However, there is a need to evaluate their effectiveness systematically. A Randomized Field Trial design was employed to assess the effectiveness of different maternal care facility models. Data collection included pre- and post-intervention surveys and biological markers from newborns. The study found that implementing a comprehensive risk assessment protocol in facilities led to a significant reduction in neonatal mortality rates by 20% compared to standard care practices. This randomized field trial methodology provides robust evidence for improving maternal health outcomes and can serve as a model for other low- and middle-income countries facing similar challenges. Future research should focus on scaling up the successful interventions identified in this study, with particular emphasis on training healthcare providers and community outreach programmes. Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\rightarrow}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, randomized controlled trial, public health systems, clinical outcomes, data analysis, qualitative methods, outcome measures*

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